

## Claims

1. A receiver, comprising:
  - 5 a higher frequency unit having a first input for receiving a first signal from a first sensor and having a second input for receiving a second signal from a second sensor, wherein for a first selection state, the first signal and the second signal represent a same information value; and
  - 10 a baseband unit, coupled to said higher frequency unit, said baseband unit having at least one bypass signal and at least one output, said bypass signal selecting whether the output is a function of the first signal combined with the second signal based on at least the first selection state.
2. A receiver as in claim 1, wherein the first signal received by the first  
15 sensor is a radio frequency signal, and wherein the second signal received by the second sensor is a radio frequency signal,
3. A receiver as in claim 1, wherein said baseband unit comprises:  
20 a filter, coupled to said higher frequency unit.
4. A receiver as in claim 3, wherein said baseband unit further comprises:  
a channel processing unit; coupled to an output of said filter, said channel  
processing unit generating the bypass signal.
- 25 5. A receiver as in claim 4, wherein said baseband unit further comprises:  
a demodulator; coupled to said channel processing unit.

6. A receiver as in claim 4, wherein said channel processing unit selectively combines the first signal and the second signal.
- 5 7. A receiver as in claim 1, wherein said higher frequency unit comprises:  
a radio frequency unit having a first input for receiving the first signal from the first sensor, having a second input for receiving the second signal from the second sensor, and having an output.
- 10 8. A receiver as in claim 7, wherein said higher frequency unit further comprises:  
an intermediate frequency unit; having an input coupled to the radio frequency unit for receiving an analog signal from the radio frequency unit.
- 15 9. A receiver as in claim 1, wherein said higher frequency unit provides information to said baseband unit in digital rather than analog form.
10. A receiver as in claim 9, wherein all information provided by said higher frequency unit to said baseband unit is provided in digital rather than analog  
20 form.
11. A receiver as in claim 9, wherein the first sensor is a first antennae and wherein the second sensor is a second antennae.
- 25 12. A receiver as in claim 1, wherein said baseband unit comprises:  
an echo canceller.

13. A receiver as in claim 12, wherein said echo canceller performs echo cancellation when diversity combining is used in said baseband unit.

5 14. A receiver as in claim 13, wherein use of echo cancellation is selectable.

15. A receiver, comprising:

first means for receiving a first signal from a first sensor and for receiving a second signal from a second sensor, wherein the first signal and the second signal represent a same information value for a first selection state; and

10 baseband means for generating a bypass signal and an output, said baseband means being coupled to said first means for receiving digital information relating to at least one of the first and second signals, wherein said bypass signal selects, based upon at least the first selection state, whether the output of the baseband means is a function of the first signal combined with the second signal.

16. A receiver as in claim 15, wherein said baseband unit comprises: an echo canceller.

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17. A baseband unit, comprising:

a first input for receiving a first signal derived from a first sensor;

a second input for receiving a second signal derived from a second sensor;

25 a output; and

circuitry for generating a bypass signal, wherein said bypass signal affects whether or not the output of the baseband unit is a function of the first signal combined with the second signal.

5 18. A baseband unit as in claim 17, further comprising:  
an echo canceller.

10 19. A baseband unit as in claim 18, wherein said echo canceller selectably performs echo cancelling when diversity combining is used in said baseband unit.

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